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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,536	03/04/2002	Ken Veitch	00495-0002	1050

7590 07/09/2004
Orange & Chari
66 Wellington Street West, Suite 4900
Toronto, ON M5K 1H6
CANADA

EXAMINER

BRINEY III, WALTER F

ART UNIT PAPER NUMBER

2644

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,536

Applicant(s)

VEITCH, KEN

Examiner

Walter F Briney III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 8-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 8-13 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). For the purposes of this examination, the examiner assumes that each multiple dependent claim, 8-13, is indeed dependent upon each of claims 5, 6, and 7, and will be considered on the merits. However, appropriate correction is still required to overcome this objection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Regan (US Patent 4,064,377).

Claim 1 is limited to **a tie line adapter for use with a first communication system and a second communication system**. Regan discloses an electronic hybrid (figures 3a and 3c) combined with a repeater (figure 3b). Each repeater is connected to a respective telephonic connection (i.e. **a first and second communication system**) by way of a telephone wire (i.e. **a first and second tie line**) (figure 3a, elements 102, 103; figure 3c, elements 132, 133). Because of the length of telephone wiring and the

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nature of the signals present upon them, the wires exhibit transmission line effects.

Thus, it is inherent that both telephone lines have a **characteristic** (column 1, lines 51-68). Each hybrid (i.e. **a first and second controller**) is configured for the purpose of providing impedance matching and overvoltage protection (column 2, lines 22-31). The repeater (i.e. a continuation of **the first and second controller**) is configured for providing a voltage boost for retransmission from one telephone line to another (column 2, line 54-column 3, line 4). The act of each hybrid matching the impedance of its respective transmission line is equivalent to the hybrids matching the first and second characteristic (i.e. **wherein said first characteristic and said second characteristic are adjusted to substantially match each other to allow communication between said first communication system and second communication system**). The result is higher-quality communication over non-matched telephone wires. Therefore, Regan anticipates all limitations of the claim.

Claim 2 is limited to **the line adapter of claim 1**, as covered by Regan. Regan discloses two-wire telephone lines that are known to carry **bi-directional** information (column 1, lines 8-13). Therefore, Regan anticipates all limitations of the claim.

Claim 3 is limited to **the line adapter of claim 1**, as covered by Regan. Regan discloses that the two-wire signals are converted by each hybrid into four-wire signals that carry **uni-directional** information in each pair of the four-wires (column 1, lines 13-6). Therefore, Regan anticipates all limitations of the claim.

Claim 4 is limited to **the line adapter of claim 1**, as covered by Regan. Regan discloses telephone wires connected to each hybrid of figures 3a and 3c. Telephone

wires inherently contain a multitude **a plurality of input parameters and output parameters**, such as impedance, frequency response, as well as voltage and current limitations. Therefore, Regan anticipates all limitations of the claim.

Claim 5 is limited to **the line adapter of claim 4**, as covered by Regan. Regan discloses a second hybrid (i.e. **first controller**) (figure 3c) that includes impedance matching networks (i.e. **mode select switch**) (elements 140, 170, 170, 181) (column 10, line 54-column 12, line 68). The impedance networks match each transmission to-and-from the first line to the impedance of the second line (i.e. **selectively choosing a value of at least one of a plurality of parameters of said first tie line characteristics to cause said value of said at least one of a plurality of parameters to substantially match a value of said at least one of a plurality of parameters of said second tie line characteristics**). Therefore, Regan anticipates all limitations of the claim.

Claim 6 is limited to **the line adapter of claim 4**, as covered by Regan. Regan discloses a first hybrid (i.e. **second controller**) (figure 3a) that includes impedance matching networks (i.e. **mode select switch**) (elements 118, 114, 106, 107, etc...) (column 9, line 40-column 10, line 21). The impedance networks match each transmission to-and-from the second line to the impedance of the first line (i.e. **wherein said second controller includes a mode select switch for selectively choosing a value of at least one of a plurality of parameters of said second tie line characteristics to cause said value of said at least one of a plurality of parameter to substantially match a value of said at least one of a plurality of parameters of**

said first tie line characteristics). Therefore, Regan anticipates all limitations of the claim.

Claim 7 is limited to **the line adapter of claim 4**, as covered by Regan. Claim 7 is merely a merger of the limitations of claims 5 and 6; thus, it is rejected for the same reasons presented in both claims 5 and 6.

Because Claim 7 contains all the limitation of both claims 5 and 6, it follows that any of claims 8-13, in view of their dependence on claim 7, will contain all the limitations of both claims 5 and 6.

Claim 8 is limited to **the line adapter of claims 5, 6 and 7**, as covered by Regan. Regan discloses clamping diodes (column 11, lines 33-64) that limits input voltage of the second line (i.e. **wherein said at least one of said plurality of input parameters is voltage**). Therefore, Regan anticipates all limitations of the claim.

Claim 9 is limited to **the line adapter of claims 5, 6 and 7**, as covered by Regan. Regan discloses matching the impedance seen looking into each two-wire line to prevent coupling of signals from the transmitter to the receiver (i.e. **wherein said at least one of said plurality of input parameters is impedance**) (column 12, lines 6-27). Therefore, Regan anticipates all limitations of the claim.

Claim 10 is limited to **the line adapter of claims 5, 6 and 7**, as covered by Regan. Regan discloses repeater circuitry (figure 3b) that determines the length of a telephone wire and boosts the voltage of a transmission dependent on the length of wire (i.e. **wherein said at least one of said plurality of output parameters is voltage**)

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(column 2, line 54-column 3, line 4). Therefore, Regan anticipates all limitations of the claim.

Claim 11 is limited to **the line adapter of claims 5, 6 and 7**, as covered by Regan. Regan discloses matching the impedance seen by the wire looking into the hybrid to prevent reflections back onto the telephone line (i.e. **wherein said at least one of said plurality of output parameters is impedance**) (column 12, lines 28-68). Therefore, Regan anticipates all limitations of the claim.

Claim 12 is essentially a combination of claims 8 and 9 and is rejected for the same reasons.

Claim 13 is essentially a combination of claims 10 and 11 and is rejected for the same reasons.

Claim 14 is limited to a method of matching a first tie line to a second tie line, wherein the steps are inherently performed by the apparatus of Regan. Therefore, claim 14 is rejected for the same reasons as claim 7.

Claims 15-18 are rejected for the same reasons as claims 8-11, respectively.

Conclusion

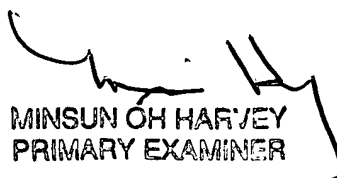
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F Briney III whose telephone number is 703-305-0347. The examiner can normally be reached on M-F 8am - 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WFB
6/25/04


MINSUN OH HARVEY
PRIMARY EXAMINER